

Application Serial No: 09/835,863
Attorney Docket No.: ACT-125

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical interconnect, comprising:
- A ~~a~~ waveguide holder ~~having comprising~~ a first exterior side and a second exterior side, said first exterior side comprising having a first depression and said second exterior side comprising having a second depression, and said waveguide holder having an opening therein; and
- a planar waveguide structure ~~plurality of waveguides~~ disposed in said opening.
2. (Currently Amended) An optical interconnect as recited in claim 1, wherein said waveguide holder ~~further~~ comprises a substrate having a lid disposed thereover.
3. (Currently Amended) An optical interconnect as recited in claim 2, wherein said planar waveguide structure comprises a plurality of waveguides ~~are disposed in a waveguide structure~~.
4. (Currently Amended) An optical interconnect as recited in claim 1, 3, wherein said planar waveguide structure ~~is~~ forms part of an integrated optical chip.
5. (Currently Amended) An optical interconnect as recited in claim 2, wherein said substrate ~~has~~ comprises a first side with a first edge and said lid ~~has~~ comprises a first side with a first edge and said first edges of said lid and said substrate form said first depression.

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6. (Currently Amended) An optical interconnect as recited in claim 5, 2, wherein said substrate ~~has~~ comprises a second side with a second edge and said lid ~~has~~ comprises a second side with a second edge and said second edges of said lid and said substrate form said second depression.

7. (Currently Amended) An optical interconnect as recited in claim 2, wherein said lid ~~has~~ comprises at least one alignment recess and a positioning member is disposed in each of said at least one alignment recesses.

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(cont)
8. (Currently Amended) An optical interconnect as recited in claim 2, wherein said lid ~~has~~ comprises at least one alignment recess and said substrate ~~has~~ comprises at least one alignment recess, and each of said at least one recesses of said lid is disposed over one of said at least one alignment recesses in said substrate forming an alignment feature; and

a positioning member is disposed in each of said alignment cavities.

9. (Currently Amended) An optical interconnect as recited in claim 2, wherein said substrate and said lid each ~~include~~ comprise at least one complementary alignment feature.

10. (Original) An optical interconnect as recited in claim 9, wherein said at least one complementary feature further comprises a pedestal disposed in an alignment recess.

11. (Currently Amended) An optical interconnect, comprising:
A substrate having comprising a first exterior side with a first edge and a second exterior side with a second edge;
a planar waveguide structure plurality of waveguides disposed over said substrate; and
a lid disposed on said planar waveguide structure, wherein a first depression is formed between said first exterior side and said lid and a second depression is formed between said second exterior side and said lid plurality of waveguides.

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12. (Currently Amended) An optical interconnect as recited in claim 11, wherein said lid has comprises a first side with a first overhang and a second side with a second overhang, and said first overhang and said first edge forms a said first depression and said second overhang and said second edge form a said second depression.

13. (New) An optical interconnect as recited in claim 1, further comprising a first guide pin in said first depression and a second guide pin in said second depression.

14. (New) An optical interconnect as recited in claim 1, wherein the first and second depressions are on opposite sides of the substrate.

15. (New) An optical interconnect as recited in claim 2, wherein the lid is spaced apart from the planar waveguide structure.

16. (New) An optical connector, comprising the optical interconnect of claim 1.

17. (New) The optical connector of claim 16, wherein the optical connector is an MT connector, a mini-MT connector, or a MAC connector.

18. (New) An optical interconnect as recited in claim 11, further comprising a first guide pin in said first depression and a second guide pin in said second depression.

19. (New) An optical interconnect as recited in claim 11, wherein the first and second depressions are on opposite sides of the substrate.

20. (New) An optical interconnect, comprising:

a waveguide holder comprising a substrate and a lid disposed over the substrate, wherein an external surface of the substrate and lid together form a depression for receiving an alignment pin; and

a planar waveguide structure disposed on the substrate and under the lid.